CLAIMS

1. An apparatus comprising:

an encoder, the encoder to compress a plurality of signals at variable rates based on a plurality of prioritized parameters to reduce signal bandwidth while preserving perceptual signal quality.

2. The apparatus of claim 1, wherein a transmission rate of the plurality of compressed signals is dynamically set.

3. The apparatus of claim 1, wherein the plurality of compressed signals are speech signals.

4. The apparatus of claim 1, wherein the encoder comprises:

an epoch locator unit;

a first epoch analyzer;

a second epoch analyzer; and

a frame assembler unit.

5. The apparatus of claim 4, wherein the plurality of compressed signals in one of half frames and full frames.

6. The apparatus of claim 4, further including a network traffic manager coupled to the encoder.

7. The apparatus of claim 6, wherein the network manager is one of co-resident with the encoder and remotely located relative to the encoder.

8. The apparatus of claim 1, wherein a priority level of each of the plurality of prioritized parameters is based on quality of speech.

9. An apparatus comprising:

a decoder; and

to decompress a plurality of compressed signals at variable rates based on a plurality of prioritized parameters to reduce signal bandwidth while preserving perceptual signal quality.

10. The apparatus of claim 9, wherein a transmission rate of the plurality of compressed signals is dynamically set.

11. The apparatus of claim 9, wherein the plurality of compressed signals are speech signals.

12. The apparatus of claim 9, wherein the decoder comprises:

a frame disassembly and parameter decoding unit;

an excitation generator;

a synthesizing filter; and

an output scaling and filtering unit.

13. The apparatus of claim 9, wherein the plurality of compressed signals decompressed by the decoder at variable rates based on the plurality of prioritized parameters improve transmission during dynamically changing bandwidth while preserving perceptual quality of the signals.

14. A program storage device readable by a machine comprising instructions that cause the machine to:

receive a plurality of signals from a first transmission device;

encode the plurality of signals in a compressed format; and

transmit the plurality of signals in a compressed format through a transmission medium at variable rates based on a plurality of prioritized parameters to reduce signal bandwidth while preserving perceptual quality of the signals.

15. The program storage device of claim 14, wherein a transmission rate of the plurality of compressed signals is dynamically set.

16. The program storage device of claim 14, wherein the plurality of signals in a compressed format are speech signals.

17. The program storage device of claim 14, wherein encode instructions cause the machine to:

locate an epoch;

analyze a first epoch;

analyze a second epoch; and

assemble a frame.

18. The program storage device of claim 17, wherein the transmit of the plurality of compressed signals is in one of a half frame and a full frame.

19. The program storage device of claim 14, further comprising instructions that cause the machine to:

prioritize each of the plurality of prioritized parameters based on quality of speech.

20. A program storage device readable by a machine comprising instructions that cause the machine to:

receive the plurality of signals in a compressed format through a transmission medium at variable rates based on a plurality of prioritized parameters to reduce signal bandwidth while preserving perceptual quality of the signals;

decode the plurality of compressed signals; and

transmit the decoded signals to a first receiving device.

21. The program storage device of claim 20, wherein a transmission rate of the plurality of compressed signals is dynamically set.

22. The program storage device of claim 20, wherein the plurality of signals in a compressed format are speech signals.

23. The program storage device of claim 20, wherein decode instructions cause the machine to:

disassemble and parameter decode a frame;

generate an excitation;

synthesize and filter; and

scale and filter an output.

24. The program storage device of claim 20, wherein the receipt of the plurality of compressed signals at variable rates based on the plurality of prioritized parameters improves signal transmission during dynamically changing bandwidth of the transmission medium while preserving perceptual quality of the signals.

25. The program storage device of claim 20, further comprising instructions that cause the machine to:

prioritize each of the plurality of prioritized parameters based on quality of speech.

26. A method comprising:

receiving a plurality of signals from a transmission device;

encoding the plurality of signals in a compressed format; and

transmitting the plurality of signals in a compressed format through a transmission medium at variable rates based on a plurality of prioritized parameters to reduce signal bandwidth while preserving perceptual quality of the signals.

27. The method of claim 26, wherein the variable transmission rate of the plurality of compressed signals is dynamically set.

28. The method of claim 26, wherein the plurality of signals in a compressed format are speech signals.

29. The method of claim 26, wherein encoding comprises:

locating an epoch;

analyzing a first epoch;

analyzing a second epoch; and

assembling a frame.

30. The method of claim 26, wherein the transmitting of the plurality of compressed signals is in one of a half frame and a full frame.

31. The method of claim 26, further comprising:

establishing a priority level of each of the plurality of prioritized parameters based on quality of speech.

32. The method of claim 26, wherein the transmitting of the plurality of compressed signals at variable rates based on the plurality of prioritized parameters improves signal transmission during dynamically changing bandwidth of the transmission medium while preserving perceptual quality of the signals.

33. A method comprising:

receiving a plurality of signals in a compressed format through a transmission medium at variable rates based on a plurality of prioritized parameters to reduce signal bandwidth while preserving perceptual quality of the plurality of the signals;

decoding the plurality of compressed signals; and

transmitting the decoded signals to a receiving device.

34. The method of claim 33, wherein the variable transmission rate of the plurality of compressed signals is dynamically set.

35. The method of claim 33, wherein the plurality of signals in a compressed format are speech signals.

36. The method of claim 33, wherein decoding comprises:

disassembling and parameter decoding a frame;

generating an excitation;

synthesizing and filtering; and

scaling and filtering an output.

37. The method of claim 33, wherein the receiving the plurality of compressed signals at variable rates based on the plurality of prioritized parameters improves signal transmission during dynamically changing bandwidth of the transmission medium while preserving perceptual quality of the signals.

38. The method of claim 33, wherein the receiving of the plurality of compressed signals is in one of a half frame and a full frame.

39. The method of claim 33, wherein receiving comprises:

prioritizing each of the plurality of prioritized parameters based on quality of speech.